United Heckathorn Superfund Site

April 23, 2013

Outline

- Site background
- Current site status
- Removal action
- Recent field work
- Upcoming work and schedule
- Community involvement

Cleanup History

- Initial response (1990-1998)
  - 3,300 cubic yards of DDT-contaminated soil removed from upland area
  - Dredged 107,000 cubic yards of contaminated sediment (3 tons DDT) from Lauritzen Channel and Parr Canal
  - Capped upland area with concrete to prevent erosion
- Monitoring and additional investigations
  - Sampling of fish, mussels, sediment, and water
  - Source investigations: embankment sampling, capping a drain pipe, fluid mud study
  - Five Year Reviews in 2001, 2006, and 2011

United Heckathorn Site

Current Site Status

- The upland cap remains intact and protective.
- DDT levels in the Inner Richmond Harbor, Santa Fe Channel and Parr Canal have decreased significantly.
- DDT levels in Lauritzen Channel are elevated and pose a potential long-term risk to human health through consumption of fish.
- DDT levels in Lauritzen Channel pose a potential ecological risk to fish-eating birds and mammals.

Preventing Exposure

- Fenced area around Lauritzen Channel prevents access; active marine terminal subject to homeland security requirements
- State of California recently updated fish advisory; new fish advisory signs posted

Removal Action

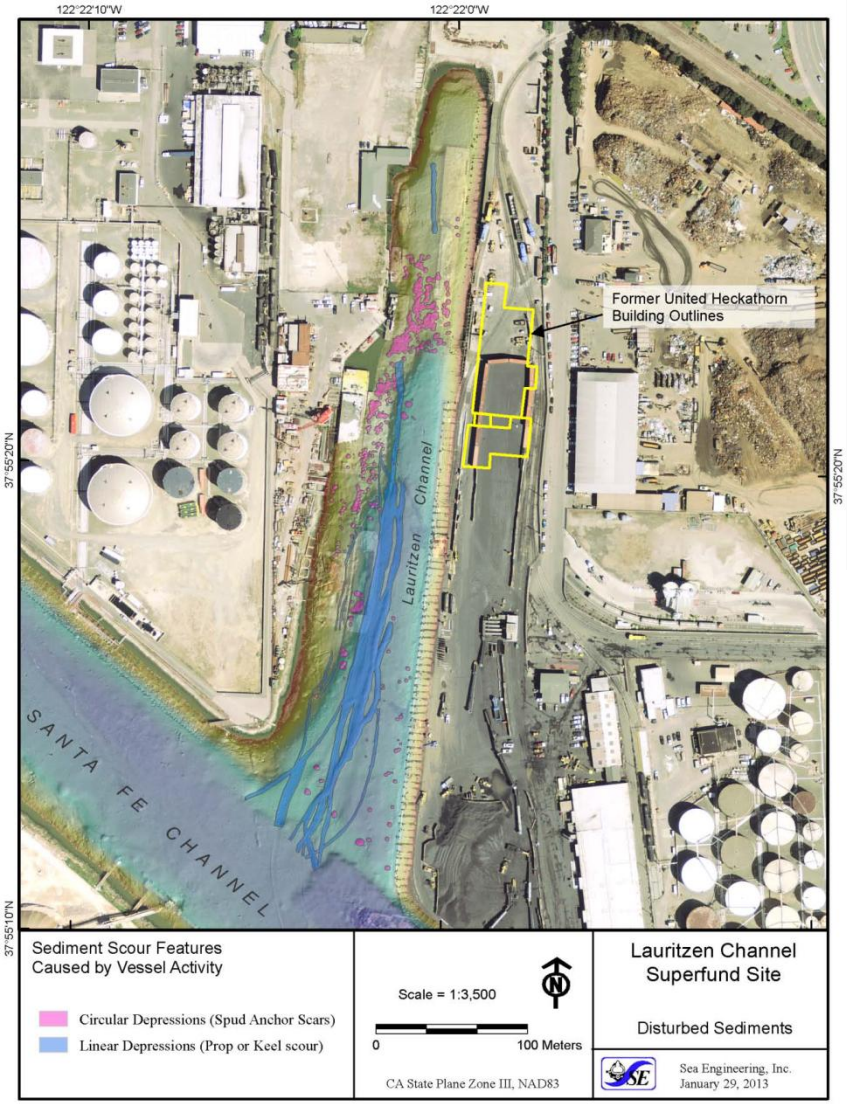
- In October 2012, EPA contractors installed a flap-gate on the outfall at the end of the Lauritzen channel to prevent contaminated sediment from re-entering the storm drains

- EPA will clean out sediment that previously accumulated in the storm drains adjacent to the outfall when funding is available.

Recent Field Work

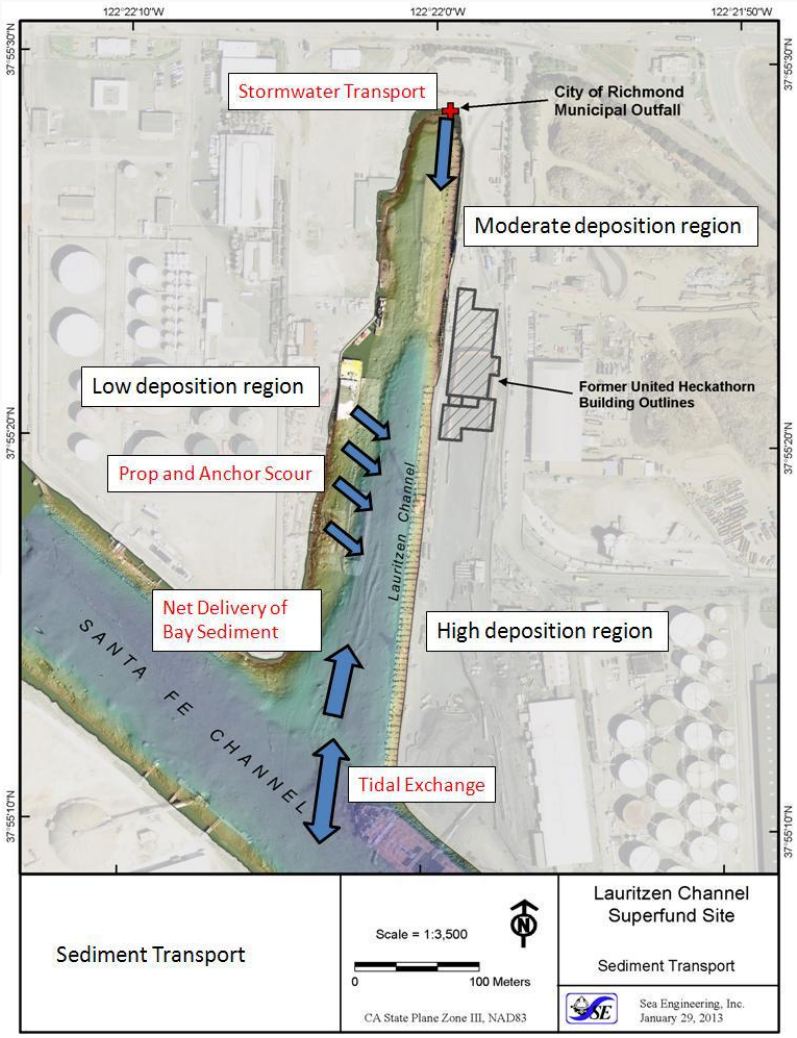
- Bathymetric study conducted in December 2012; Tier 1 Sediment Study report finalized in April 2013
- Groundwater sampling along Lauritzen Channel completed in March 2013
- Sediment sampling completed in April 2013

Bathymetric Study



- Multi-beam and side-scan sonar create images of the channel bottom
- Evidence of scour features
- Natural and anthropogenic forces

Tier 1 Sediment Study

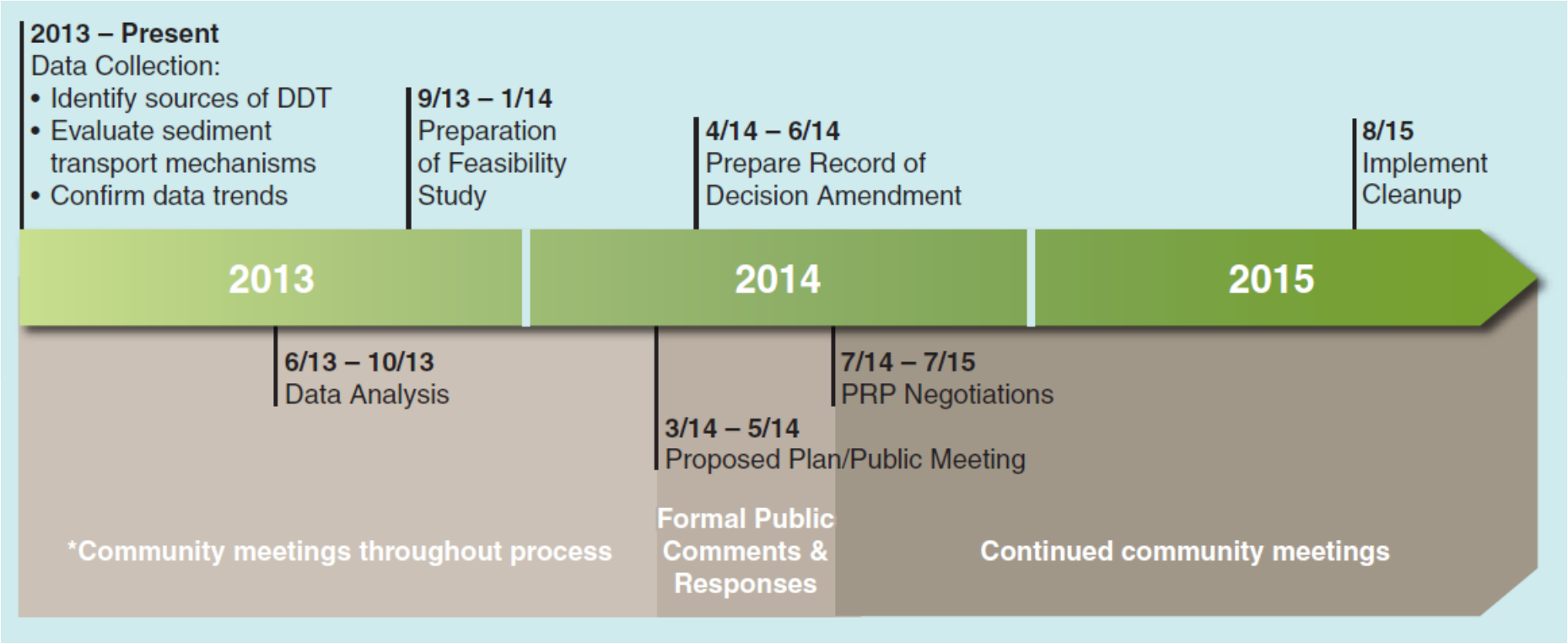


- Areas of erosion and accumulation of sediment
- Residence time
- Tier 2 report will include more detailed analysis of sediment movements, including current meters and particle tracking

Ongoing 2013 Field Work

Task	Field Date	Lab Analysis	Information Collected
Install flap-gate on outfall	Complete	Not applicable	Prevent DDT contaminated sediment in channel from entering outfall
Bathymetric study	Complete	2 to 3 months	Establish areas of deposition and erosion
Evaluate other potential DDT sources	Spring 2013	2 to 3 months	Establish source(s) to control
Sediment sampling	Spring 2013	2 to 3 months	Evaluate DDT and dieldrin trends
Fish sampling event	Summer 2013	2 to 3 months	Evaluate DDT in fish in Richmond Harbor
Evaluate net flux of sediment in and out of channel	Summer 2013	2 to 3 months	Determine quantity of sediment moving in and out of channel
Evaluate resuspension of DDT during ship traffic	Summer 2013	1 to 2 months	Determine amount of DDT resuspended and bioavailable

Cleanup Schedule



Community Involvement

- Technical Assistance Needs Assessment (TANA) completed in October 2012
- Community meeting December 2012
- Interim contract in place with Technical Assistance Services for Communities (TASC) to look into the fish advisories and create a fact sheet about DDT
- Fish sampling event in Richmond Harbor including local fishermen planned for summer 2013
- Multi-lingual fish event flyers posted in November and December 2012 at locations along the waterfront and in the local community

Contact Information

Please contact us if you have any questions about the cleanup or community involvement, or would like to be added to the site mailing list:

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Information on the United Heckathorn Cleanup:
www.epa.gov/region09/unitedheckathorn